

**Translation**

**PATENT COOPERATION TREATY**

PCT/JP2004/002012



**PCT**

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**  
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 103-1032	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/JP2004/002012	International filing date (day/month/year) 20 February 2004 (20.02.2004)	Priority date (day/month/year) 21 February 2003 (21.02.2003)
International Patent Classification (IPC) or national classification and IPC B32B 9/00, 7/02, 27/00, C08J 7/06, G02B 1/10		
Applicant ASAHI KASEI KABUSHIKI KAISHA		

<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>4</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>	
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>	

Date of submission of the demand 26 March 2004 (26.03.2004)	Date of completion of this report 03 February 2005 (03.02.2005)
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2004/002012

## Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

- ☐ This report is based on translations from the original language into the following language \_\_\_\_\_, which is language of a translation furnished for the purpose of:
- ☐ international search (under Rules 12.3 and 23.1(b))
  - ☐ publication of the international application (under Rule 12.4)
  - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

- ☒ The international application as originally filed/furnished
- ☐ the description:
- pages \_\_\_\_\_, as originally filed/furnished
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ the claims:
- pages \_\_\_\_\_, as originally filed/furnished
- pages\* \_\_\_\_\_, as amended (together with any statement) under Article 19
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ the drawings:
- pages \_\_\_\_\_, as originally filed/furnished
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**

International application No.

PCT/JP04/002012

**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**
**1. Statement**

Novelty (N)	Claims	1-6, 10, 11, 14	YES
	Claims	7-9, 12, 13	NO
Inventive step (IS)	Claims	1-6, 10, 11, 14	YES
	Claims	7-9, 12, 13	NO
Industrial applicability (IA)	Claims	1-14	YES
	Claims		NO

**2. Citations and explanations (Rule 70.7)**

Document 1: JP, 2001-278637, A (Nippon Sheet Glass Co., Ltd.), 10 October, 2001 (10.10.01), & WO, 01-042156, A1, & EP, 1167313, A1

Document 2: JP, 2002-371148, A (Mitsubishi Rayon Co., Ltd.), 26 December, 2002 (26.12.02)

Document 3: JP, 11-292568, A (Nippon Sheet Glass Co., Ltd.), 26 October, 1999 (26.10.99), & WO, 99-29635, A1, & EP, 974560, A1

**Claims 7 and 8**

Document 1 describes that chain-like agglomerated fine silica particles with an average primary particle size of 10 to 100 nm, a hydrolyzable metal compound, water and a solvent are mixed and hydrolyzed to obtain a coating composition destined to form a low reflection film consisting of fine silica particles and a binder on a substrate (the claims), and also describes a hydrolyzable group-containing silane as the hydrolyzable metal compound (Example 5). So, the subject matters of claims 7 and 8 do not appear to be novel or to involve an inventive step.

**Claim 9**

Document 1 describes mixing 53.3 g of chain-like agglomerated fine silica particles and 6.9 g of tetraethoxysilane. So, the subject matter of claim 9 does not appear to be novel or to involve an inventive step.

**Claim 12**

Document 1 describes that a preferred raw material mixing ratio of a coating composition consists of 100 parts by weight of a hydrolyzable metal compound, 150 to 1900 parts by weight of chain-like agglomerated fine silica particles, 50 to 10000 parts by weight of water, 0 to 200 parts by weight of an acid catalyst and 1000 to 500000 parts by weight of a solvent (Table I). So, the subject matter of claim 12 does not appear to be novel or to involve an inventive step.

**Claim 13**

Document 1 describes a reflection preventive film containing a porous silica layer with a low refractive index formed by using a coating composition obtained by mixing chain-like agglomerated fine silica particles with an average primary particle size of 10 to 100 nm, a hydrolyzable metal compound, water and a solvent. So, the subject matter of claim 13 does not appear to be novel or to involve an inventive step.

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**

International application No.

**PCT/JP04/002012**

**Supplemental Box**

In case the space in any of the preceding boxes is not sufficient.

Continuation of: V

Claims 1-6, 10, 11 and 14

The subject matters of claims 1-6, 10, 11 and 14 are neither described in any of the documents cited in the ISR nor obvious to a person skilled in the art.